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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,442	10/11/2001	Jennifer Anne Dervin	IBM / 204	9166

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Scott A. Stinebruner
Wood, Herron & Evans, L.L.P.
2700 Carew Tower
441 Vine Street
Cincinnati, OH 45202-2917

EXAMINER

REID, CHERYL M

ART UNIT	PAPER NUMBER
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2142

DATE MAILED: 03/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/975,442

Applicant(s)

DERVIN ET AL.

Examiner

Cheryl M. Reid

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2001.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-31 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 11-12, 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Arendt.

Claims 1-3, 12,19

- Arendt teaches about a cluster software package (HACMP) that updates the cluster software in individual nodes while the group is maintained in an active state (Col 2, lines 20-30); notifying the group of the update (Col 4, lines 55-62, Col 5, lines 40-45); updating a cluster infrastructure....(Col 6, lines 1-5, Col 6, lines 5-12, Col 8, lines 10-20); Arendt teaches about improvement to the HACMP software package to overcome its limitations (Col 2, lines 33-40, Col 2, lines 55-60) thus updating the infrastructure software (Col 4, lines 40-60) does include at least one new function whereby the group has access to the new function.

Arendt teaches about notifying ...cluster computer system...(Col 5, lines 40-45).

Claim 11, 18

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- Arendt teaches of a node configured to participate in a clustered(Col 3, lines 45-50).....configured to notify....and dynamically update a cluster version.....(Col 4, lines 55-62, Col 5, lines 40-45, Col 10, lines 5-15).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 25-26 are, rejected under 35 U.S.C. 103(a) as being unpatentable over Arendt as applied to claim 1 above, and further in view of Kumar.

Claim 4

- Arendt does not explicitly teach of shutting down a node to install the software version. Kumar implicitly teaches that his invention is capable of shutting down a node (removing a node) (Col 7, lines 10-15) and he explicitly teaches about modifying (updating) cluster configurations (Col 6, lines 10-15) and adding a node (restarting the node) (Col 7, lines 4-10). It is an objective of Arendt's invention to change cluster configuration without interrupting services (Col 1, lines 55-60). Adding the above-mentioned modification to Arendt's invention would accomplish this objective (Kumar, Col 3, lines 5-20). It is for this reason

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that one of ordinary skill in the arts at the time of invention would have been motivated to make the above-mentioned modifications.

Claim 25

- Arendt teaches of a plurality of nodes..... a group including a plurality of group members....(Col 3, lines 45-50, (Col 4, lines 64-67); program code resident on the plurality of nodes.....(Col 10). Arendt does not explicitly teach of shutting down and restarting individual nodes. Kumar teaches on this aspect (Col 7, lines 10-15, Col 7, lines 4-10). One of ordinary skill in the arts at the time of invention would have been motivated to make the above-mentioned modifications for the same reasons discussed about in Claim 4.

Claim 26

- Arendt teaches about improvement to the HACMP software package to overcome its limitations (Col 2, lines 33-40, Col 2, lines 55-60) thus updating the infrastructure software (Col 4, lines 40-60) does include at least one new function whereby the group has access to the new function.

5. Claims 15 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arendt as applied to claim 11 and 18 above, and further in view of Chao.

Claim 15 and 22

- Arendt is silent in regards to verifying nodes active.....return error message. Chao implicitly teaches on this aspect (Col 3, lines 40-45). Examiner is interpreting restarting resource groups as sending an error message because restarting indicates to the other members that there was a failure in a heartbeat check. Adding the above-mentioned modifications would result in a more efficient cluster system. It is for this reason that one of ordinary skill in the art at the time of invention would have been motivated to make the above-mentioned modifications.

6. Claims 5-8,13-14,20-21, and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arendt and Kumar as applied to claim 4 and 25 above, and further in view of Shirvastava.

Claim 5

- Both Arendt and Kumar did not explicitly teach of removing a member that is resident on the node from the group.....adding the member to the group. Shirvastava teaches on this aspect (Col 5, lines 34-40, Col 9, lines 37-43). One of ordinary skill in the art at the time of invention would have been motivated to make the above-mentioned modifications for the same reasons discussed about in Claim 4.

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Claim 6-7, 13-14,20-21, 27-28

- Both Arendt and Kumar did not explicitly teach of sending an ordered messageand a membership change message. Shirvastava teaches on this aspect (Col 5, lines 24-30, Col 6, lines 60-65). One of ordinary skill in the art at the time of invention would have been motivated to make the above-mentioned modifications for the same reasons discussed about in Claim 4.

Claim 8

- Both Arendt and Kumar did not explicitly teach of verifying that all nodes are active. Shirvastava teaches on this aspect (Col 5, lines 15-21). Adding the above-mentioned modification to Arendt's invention would result in a more efficient system because it allows the cluster software to be aware of which nodes needed updating. It is for this reason that one of ordinary skill in the art at the time of invention would have been motivated to make the above-mentioned medications.

7. Claims 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Arendt and as applied to claim 1 above, and further in view of Kumar and Shirvastava.

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Claim 9

- Arendt is silent in regards to verifying that group is not.....Kumar teaches about preventing partitioning (Col 3, lines 15-20) and Shrivastava teaches about notifying groups (Col 5, lines 25-32). Adding the above-mentioned modifications would allow effective and efficient reconfiguring of a cluster, which is a main objective of Arendt's invention (Col 1, lines 55-60). It is for this reason that one of ordinary skill in the art at the time of invention would have been motivated to make the above-mentioned modifications.

8. Claims 16 and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Arendt as applied to claim 11 and 18 above, and further in view of Chao and Shrivastava.

Claim 16 and 23

- In regards to checking for partitioning, please refer to discussion in Claim 9. Both Arendt and Shrivastava are silent in regards to error message. Chao implicitly teaches on this aspect (Col 3, lines 40-45). Examiner is interpreting restarting resource groups as sending an error message because restarting indicates to the other members that there is a failure in a heartbeat check. Adding the above-mentioned modifications would result in a more efficient cluster system. It is for this reason that one of

ordinary skill in the art at the time of invention would have been motivated to make the above-mentioned modifications.

9. Claim 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arendt and Kumar as applied to claim 25 above, and further in view of Chao and Shrivastava.

Claim 29

- In regards to verifying that node is active refer to the discussion of Claim 8. In regards to error message refer to the discussion of Claim 15.

Claim 30

- In regards to checking for partitioning, please refer to discussion in Claim 9. Arendt, Kumar and Shrivastava are silent in regards to error message. Chao implicitly teaches on this aspect (Col 3, lines 40-45). Examiner is interpreting restarting resource groups as sending an error message because restarting indicates to the other members that there was a failure in a heartbeat check. Adding the above-mentioned modifications would result in a more efficient cluster system. It is for this reason that one of ordinary skill in the art at the time of invention would have been motivated to make the above-mentioned modifications.

10. Claims 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arendt and further in view of official notice.

Claim 10

- Arendt is silent in regards to verifying that all.prior to notifyingIt is well known in the arts to verify that a system is capable of running an updated version of a program before installation and thus official notice is taken. This is commonly done when an individual or business purchases or attempts to install programs on their system. A check is performed to see if system can run the new version. Usually if the system is capable of running new program, the installation is continued, if system is not capable of running new program, user is informed along with recommendations that will allow the running of the new program. Adding the above-mentioned modifications would result in a more efficient system. It is for this reason that one of ordinary skill in the art at the time of invention would have been motivated to make the above-mentioned modifications.

11. Claims 17 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arendt as applied to claim 11 and 18 above, and further in view of Chao and Official notice.

Claim 17 and 24

- In regards to verifying....refer to claim 10. In regards to error message refer to claim 15.

12. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arendt and Kumar as applied to claim 25 above, and further in view of Chao and Official Notice.

Claim 31

- In regards to verifying....refer to claim 10. In regards to error message refer to claim 15.


13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl M. Reid whose telephone number is 571 272 3903. The examiner can normally be reached on Mon- Fri (7-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey can be reached on (571)272-3896. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cmr



Jack Amy
SUPERVISOR